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Mechev

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(54) **HOT STRIP MILL CONTROLLER**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57)   **ABSTRACT**

The present invention provides a method of controlling the height of a looper in an inter-stand section of a hot strip mill that overcomes the problem of looper instability due to looper inertia without the need for the controller of upstream rollers to have a reduced gain. The inter-stand section of the hot strip mill comprises a pair of upstream rollers driven by a main motor and a looper driven by a looper motor. The method comprises the steps of: calculating a desired speed trim to be applied by the main motor; estimating the inertia of the looper; calculating a torque necessary to overcome the inertia of the looper from the speed trim, the estimated inertia of the looper and a sensitivity calculated from the geometry of the looper; and controlling the main motor to apply the speed trim to the upstream rollers and controlling the looper motor to apply the calculated torque to the looper.

11 Claims, 2 Drawing Sheets